MBI
MASSACHUSETTS
BROADBAND INSTITUTE
at the MassTech
Collaborative

January 28, 2013

BY ELECTRONIC DELIVERY

Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street SW
Washington, DC 20554

Re: WC Docket No. 10-90 - Connect America Fund

Dear Ms. Dortch:

The following comments are from the Director of the Massachusetts Broadband Institute in response to the November 19, 2012, Further Notice of Proposed Rulemaking, and reflect my opinion on how best to use and administer the remaining Connect America Fund (CAF) I funds by creating a CAF II Pilot program.

Massachusetts Broadband Institute
The Massachusetts Broadband Institute at the Massachusetts Technology Collaborative is the state broadband program created by Governor Deval Patrick and the Massachusetts state legislature in 2008 to bring affordable, high-speed broadband Internet access to the remaining unserved/underserved residents and businesses in the Commonwealth. The MBI believes it is the only state organization in the United States that is implementing broadband availability mapping, broadband adoption and network infrastructure deployment programs.

The MBI is currently working to complete our mission by deploying the 1,200 mile ***MassBroadband 123*** fiber-optic network. ***MassBroadband 123*** is a BTOP funded network, directly connecting over 1,200 community anchor institutions and providing a regional fiber backbone for five underserved, rural, western Massachusetts counties that are home to over one million people and 44,000 businesses. The network will begin to be operational in April and all 1,200 community connections will be serviceable this summer.

For those whose knowledge of Massachusetts is the city of Boston, Harvard University and Fenway Park, there is a very rural western region in the state. While Massachusetts is the 7th most densely populated state in the nation, with an average population of 839 people per square mile, the density of the 351 individual cities and towns varies greatly. The Allston neighborhood of Boston has a population density of over 20,000 people per square mile. In great contrast, the Town of Mount Washington in the far southwestern corner of the Commonwealth has a density of just 5 people per square mile. In Allston there are multiple providers, including Verizon which offers a 75Mbps service

for $90 per month. By comparison, in Mount Washington there is no wireline service provider and HughesNet advertises an up to 15Mbps service wireless for $99 per month with significant installation fees and monthly use limitations. Through the MBI's broadband availability mapping and data efforts, the MBI has identified over 45 underserved, rural communities that comprise almost one third of the states geographic area.

As an organization actively deploying fiber-optic infrastructure in rural, hard to serve areas, the MBI believes from our experience that CAF II can play an essential role in making sustainable, rural Fiber-to-the-Home deployments a reality in places like western Massachusetts.

While some may argue that fiber-optic deployments in rural, low-density areas is not a fiscally sound solution, the MBI's last mile analysis has concluded that in the hilly, heavily tree covered terrain of western Massachusetts fiber-optics are actually a better long-term, financial investment than wireless solutions. Again, I believe the CAF can make rural, fiber-optics a viable solution.

I. Use Remaining CAF I Funds to Launch a CAF II Pilot Program

I urge the FCC to use the $185M in remaining CAF I funds and proceed as quickly as possible with implementing a CAF II Pilot Program. If a Pilot program is created, the MBI intends to apply for CAF funding to deploy a regional, rural fiber to the home extension off of the ***MassBroadband 123*** network in western Massachusetts.

By rolling funds into a second CAF I round, the pool of possible providers able to use CAF to invest in solutions, like the one the MBI is exploring for western Massachusetts, will remain limited to the incumbent providers who have already passed over the funding. Rolling the funds into a Pilot and moving forward with CAF II expands the opportunity to entities that are willing and capable and with the help of CAF will finally be financially able to invest in the sustainable solutions our unserved communities so desperately need.

I believe that in order to reach the remaining 18 million unserved Americans with affordable, high-speed broadband Internet and other telecommunications services, programs like CAF must work to increase and support the pool of all possible Eligible Telecommunications Carriers (ETC). In Massachusetts we believe that new ETC's interested and capable of investing in and deploying modern infrastructure are a key element of the solution. In Massachusetts, as in all unserved areas across the nation, the costs and challenges associated with deploying broadband infrastructure to rural, low-density communities are such that the United States cannot afford to limit any options.

II. Definition of Unserved Areas

I further suggest that the definition of broadband used for CAF should match the current FCC definition of broadband at 4Mbps and not 768kbps. Any area in the United States that is not able to access Internet service of 4Mbps or greater is being served with legacy technology that is unsustainable for the future.

The continued use of 768kbps also creates an unintended barrier to new, rural deployments by chunking out and isolating geographic areas making them harder to serve and preventing the implementation of community wide and regional solutions that are more efficient and cost effective to deploy and more likely to be financially sustainable.

For example, a small rural community partially served with a legacy DSL installation from a remote terminal with a limited number of ports may serve the village area of a community with an advertised, but perhaps not actual 4Mbps product or does not have the capacity to provide service to all potential customers, leaving the rest of the town with access to only dial-up or satellite service. In a program using a definition of 768kbps, the CAF funding would have to be used to somehow design a deployment that would reach the fringe areas without service for the center area. This is challenging and impractical from both a fiscal and design perspective and leaves behind areas with legacy DSL that will soon be outdated and inadequate.

Additionally, part of the definition for defining service areas should also recognize and allow the use of speed test data where available to demonstrate actual speeds and not just advertised speeds. As an example, the actual speeds realized by DSL in some rural areas, over maximum distances and depreciated plant often fluctuate dramatically from advertised speeds. Implementing a system for accepting speed test data will provide for a more accurate classification of service areas.

The MBI has developed a speed test database that allows Massachusetts households to test and record their actual speeds. This data set provides a true assessment of speeds and verification of availability.

III. CAF Area Challenge Process

As the Massachusetts designated broadband mapping and planning entity for the State Broadband Initiative program run the NTIA, the MBI develops the data sets used to create the National Broadband Map. We have also received supplemental funding from the NTIA to develop address level data sets.

The MBI has used the supplemental funding to build a standardized address level data set and a crowd sourcing address maintenance tool to verify the accuracy of the address locations. The MBI is also currently developing a web tool that allows various GIS and availability information to be overlaid at the address level to show specific broadband availability by household.

I believe a challenge process will be beneficial for clarifying and correcting incorrectly identified census blocks and I support the implementation of such a process. A challenge process should work both ways allowing for the review and reclassification of both served and unserved census blocks.

Under the current SBI data collection process if just one household located in a census block is served, then the entire census block is coded as served. The MBI has identified several instances where using this criteria has required underserved census blocks to be incorrectly classified as served. The challenge process should allow for the use of address level or other data where available to demonstrate and classify census blocks as underserved and therefore eligible for CAF.

Conclusion

The conversion from Universal Service to Connect America represents a real opportunity for Massachusetts and America to connect those who remain without affordable high-speed Internet access with modern fiber-optic infrastructure. Under USF, Massachusetts was a donor state with limited opportunities to obtain funding for expanding access to our rural communities. Using numbers from the USAC 2008 report, Massachusetts contributed $168 million into USF and received back only $2 million for hard to serve areas. I believe the CAF changes that dynamic for Massachusetts and I hope

the FCC proceeds quickly with implementing a CAF II Pilot so it can be leveraged to close the digital divide quickly, effectively and permanently.

Thank you for your continued leadership and support and for the opportunity to provide our thoughts on the reform and roll out of the Connect America Fund. The MBI appreciates and understands the enormity of this undertaking. The MBI would also like to publicly acknowledge the significant role the FCC has played in invigorating the broadband industry over the last several years. The National Broadband Plan, National Broadband Map and CAF are all major advances towards closing the digital divide in the United States. If the MBI can provide additional information or answer questions in support of these comments please do not hesitate to contact me at (508) 870-0312.

Sincerely,

Judith Dumont
Director